

Title (en)

Efficient electron-donating groups for nonlinear optical applications.

Title (de)

Effiziente elektronenabgebende Gruppen für nichtlinear optische Anwendungen.

Title (fr)

Groupes donneurs d'électrons efficaces pour des applications optiquement non-linéaires.

Publication

EP 0602654 A1 19940622 (EN)

Application

EP 93120340 A 19931216

Priority

US 99262592 A 19921218

Abstract (en)

Nonlinear optical materials having structures with delocalized resonance configurations corresponding to: <CHEM> or: <CHEM> wherein A is a first electron accepting group, R is pi-conjugated non-centrosymmetric organic moiety; R4 and R5 are independently selected from hydrogen, alkyl moieties and functionalized alkyl moieties; E, F, G and H are members of a saturated or unsaturated five- to ten-membered cyclic ring or two-ring systems having five- to ten-membered rings that are electron donating in nature and E, F, G and H are independently selected from -CH-, -CH2-, O, S, N, Se, Te, and -NR2-, wherein R2 is selected from hydrogen, alkyl moieties and functionalized alkyl moieties; and R1 is selected from alkyl moieties and functionalized alkyl moieties. Polymers blended with or having the disclosed nonlinear optical materials as pendant side chains and exhibiting second order nonlinear optical properties are also disclosed.

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IPC 8 full level

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Citation (search report)

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